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NEW TASMANIAN TRECHINI (COLEOPTERA: CARABIDAE)

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Abstract

Tasmanorites laticollis, *Sloanella obscura* and *Tasmanotrechus compactus* spp.n. are described from south-western Tasmania and keys are revised for the genera concerned.

Introduction

The Lower Gordon River Scientific Survey was sponsored by the Tasmanian Hydro-electric Commission and was undertaken in 1976-77 by members of the Zoology Department of the University of Tasmania. Extensive collections were accumulated from numerous stations along 14 selected transects across the valleys of the Gordon, Franklin and Olga Rivers and their tributaries, with the aim of assessing the overall composition of the arthropod fauna.

The resulting material of adult and larval Carabidae and Lucanidae has been studied by the present author and several interesting but undescribed forms have been detected in both families. Some of these novelties are not readily dealt with in the absence of satisfactory reviews of their overall groups, but the following new trechines may readily be attached to a revision of the Australian Trechinae (Moore 1972).

Holotypes of the new species will be deposited in the Australian National Insect Collection, Canberra, and paratypes will be distributed between that depository, the Tasmanian Museum and Art Gallery, Hobart, and the author's collection.

Tasmanorites laticollis sp.n.

(Figs 1, 4)

Types:– Holotype ♂, transect 2L.1140 (42°43'S, 145°49'E) (Ridge between Gordon and Olga Rivers, SW Tas.), from moss, 16.ii.1978, L. Hill *et al. Paratypes*, 8, both sexes, same collectors, same general locality, various transects and dates, 1976-77.

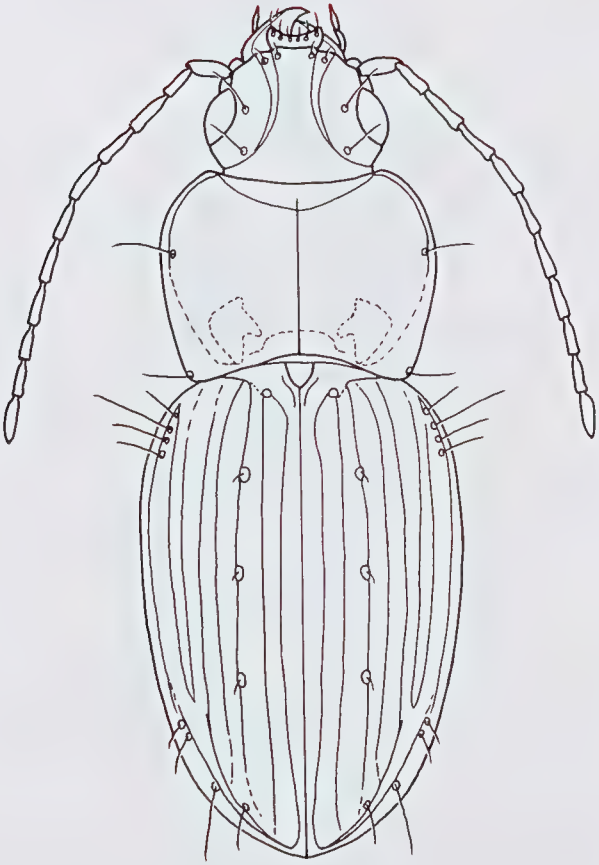
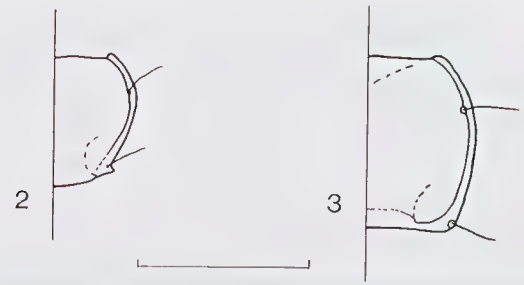


Fig. 1. *Tasmanorites laticollis* sp.n., paratype male. Natural size 5.3 mm long.

Mostly shining black; legs and antennae rufo-piceous; microsculpture very fine, quadrate meshes on head, transverse elsewhere; overall build robust.

Head rather broad, depressed; eyes well developed but not prominent beyond the orbits; orbits short, lightly inflated; frontal furrows deep; mandibles short, broad, acutely pointed; labrum deeply emarginate.

Pronotum strongly transverse (width/length *c.* 1.45), much wider than head; base and apex emarginate, the former the wider; sides regularly rounded on front two-thirds, then oblique to base; front angles rounded but a little prominent; hind angles lightly rounded, obtuse, reflexed, overlapping humeri; basal impressions broad and deep; marginal channel narrow in front, explanate behind; 2 marginal setae present.



Figs 2-3. Pronota, right side. (2) *Sloanella obscura* sp.n.; (3) *Tasmanotrechus compactus* sp.n. Scale-line = 1 mm.

Elytra broadly oval, rather depressed, about 1.2 x width of pronotum; humeri widely rounded but evident; striae impunctate; first stria strongly impressed, others progressively weaker; third stria carrying three strong discal pores; aedeagus slender (Fig. 4).

Length 4.5-5.3 mm; max. width 1.85-2.2 mm.

This very distinct species may be recognised by its broad pronotum, with rearward projection hind angles; it would run to couplet 10(9) in my key to the genus (Moore 1972), which may be modified as follows:–

10(9) Pronotal hind angles acute and out-turned 11
Pronotal hind angles obtuse, not prominent laterally 10a

10a Pronotum cordate; side margins sinuate near hind angles; base narrow, rectilinear . . . . . *austrinus* (Sl.)
Pronotum subrectangular; side margins not sinuate; base wide, emarginate . . . . . *laticollis* sp.n.

Sloanella obscura sp.n.

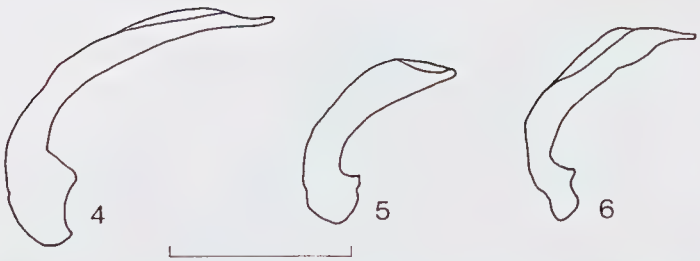
(Figs, 2, 5)

Types:– Holotype ♂, Truchanas Huon Pine Reserve, SW Tas. (42°39.5′S, 145°58′E), from moss and litter, 19.iii.1976, C. Howard. *Paratypes*, 15, both sexes, same data as holotype.

Mostly shining piceous; apex of elytra obscurely rufous in mature specimens, more clearly variegated in tenerals; legs, palpi, first (basal) antennal segments and elytral epipleura rufo-testaceous; microsculpture scarcely apparent.

Head rather broad, depressed, across eyes about 0.75 x width of pronotum; eyes well developed, projecting slightly beyond the orbits; frontal furrows deep on disc; mandibles slender but not porrect; labrum deeply emarginate.

Pronotum transverse (width/length *c.* 1.3), cordate; base sublobate; apex truncate; sides regularly rounded from apex to hind angles; front angles weak.



Figs 4-6. Aedeagal median lobes in left lateral view. (4) *Tasmanorites laticollis;* (5) *Sloanella obscura;* (6) *Tasmanotrechus compactus.* Scale-line = 0.5 mm.

hind angles forming small, sharp denticles; basal impressions broad and shallow; marginal channel narrow in front, wider near hind angles; 2 marginal setae present.

Elytra broadly ovate, *c.* 1.45 x wider than pronotum; humeri rounded but marked; marginal channel wider beside the humeral pores than elsewhere; striae complete, impunctate; apical striole continuous with the fifth stria; discal pores of third intervals beside third striae; seventh intervals with a single pore at about the mid-point; aedeagus small; median lobe stout, regularly curved, shortly contracted to apex, the latter bluntly pointed in lateral view.

Length 3.3-3.7 mm; max. width 1.35-1.45 mm.

Five additional specimens (not types) are on hand from transect 12 and neighbouring sites, all some 30 km south of the type locality. These specimens differ from the nominotypical form in their weak elytral striae, with those beyond the third being obsolescent. The discal pores are smaller, though similarly located, and the pronotal hind angles are more marked. These specimens may represent a weak subspecies and they require some relaxation of my original generic diagnosis (Moore 1972, p.26), in terms of elytral sculpture.

The four known species of *Sloanella* may be separated by means of the following modified key:–

1 Species predominantly dark; elytral 7th intervals with a single pore . . . . . *obscura* sp.n.
Species predominantly pale; elytral 7th intervals without a pore 2

2 Size major (length 5 mm or more). . . . . *suavis* Mre
Size minor (length under 4 mm) 3

3 Pronotal hind angles tuberculate; posterior marginal seta present . . . . . *pallida* Mre
Pronotal hind angles rectangular; posterior marginal seta wanting . . . . . *simsoni* (Sl.)

Tasmanotrechus compactus sp.n.

(Figs 3, 6)

Types:– Holotype ♂, transect 7R.1710 (42°51′S, 145°50.5′E) (SW Tas.), 18.ii.1976, C. Howard *et al. Paratypes*, 14 both sexes, same collectors, various transects and dates, 1976-77.

Mostly shining black but foreparts somewhat alutaceous; appendages rufous; microsculpture: quadrate meshes on head, transverse elsewhere.

Head subquadrate; eyes well developed but not prominent beyond the orbits; orbits long, lightly inflated; frontal furrows deep; mandibles slender but not porrect finely pointed; labrum deeply emerginate.

Pronotum transverse (width/length *c.* 1.3); base and apex subtruncate, the former the wider; sides regularly curved almost to base, then somewhat oblique but not sinuate; front angles weak; hind angles obtuse, rounded but quite marked; basal impressions vague; marginal channel deep in front, broadly explanate towards base; 2 marginal setae present.

Elytra elongate-oval, *c.* 1.25 x wider than pronotum, rather convex; sides lightly rounded; humeri rounded but marked; striae impunctate, first and second moderately impressed, others progressively weaker, fifth traceable, sixth and seventh obsolescent; anterior discal pore on third interval, against third stria, the posterior (subapical) bridging the interval; aedeagus slender, median lobe regularly curved in lateral view.

Length 3.8-4.5 mm; max. width 1.45-1.7 mm.

This new species may be distinguished by means of the following revised key:–

1 Eyes vestigial; cavernicolous species . . . . . *cockerilli* Mre
Eyes well developed; epigean species 2

2 Pronotum more transverse (width/length *c.* 1.25); elytral outer striae weak or obsolescent 3
Pronotum less transverse (width/length *c.* 1.15); elytral outer striae strong . . . . . *leai* (Sl.)

3 Pronotal side margins slightly sinuate before hind angles; elytra broadly ovate . . . . . *concolor* Mre
Pronotal side margins not sinuate; elytra less rounded at sides . . . . . *compactus* sp.n.

Acknowledgement

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Reference

Moore, B. P., 1972. A revision of the Australian Trechinae (Coleoptera: Carabidae). *Aust. J. Zool. Suppl. Ser.* 18: 1-61.